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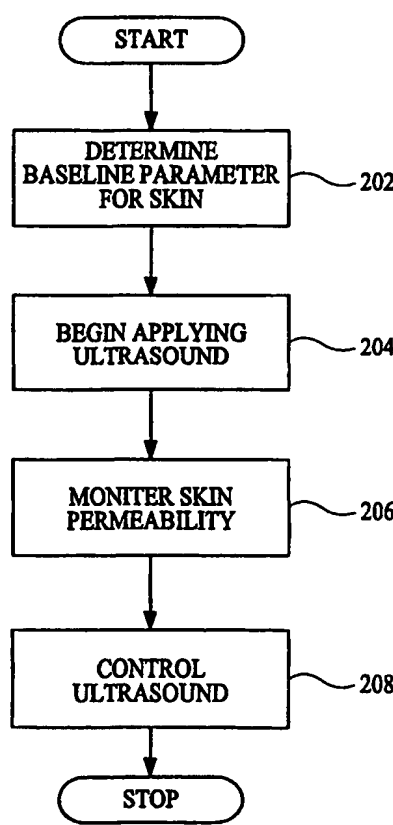
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(21) International Application Number: PCT/US99/30065 (22) International Filing Date: 17 December 1999 (17.12.99) (30) Priority Data: <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">60/112,953</td> <td style="width: 40%;">18 December 1998 (18.12.98)</td> <td style="width: 30%;">US</td> </tr> <tr> <td>60/142,950</td> <td>12 July 1999 (12.07.99)</td> <td>US</td> </tr> <tr> <td>60/142,975</td> <td>12 July 1999 (12.07.99)</td> <td>US</td> </tr> <tr> <td>60/142,941</td> <td>12 July 1999 (12.07.99)</td> <td>US</td> </tr> <tr> <td>60/142,951</td> <td>12 July 1999 (12.07.99)</td> <td>US</td> </tr> </table> (71) Applicant (for all designated States except US): SONTRA MEDICAL, INC. [US/US]; 58 Charles Street, Cambridge, MA 02141 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): MITRAGOTRI, Samir, S. [IN/US]; 157 Madison Avenue, Arlington, MA 02176 (US). KOST, Joseph [IL/US]; Apartment #303, 931 Massachusetts Avenue, Cambridge, MA 02141 (US). KELLOGG, Scott, C. [US/US]; 155 Kendrick Avenue, Quincy, MA 02169 (US). WARNER, Nick [US/US]; 296 Concord Avenue, Belmont, MA 02178 (US). ELSTROM, Tuan, A. [US/US]; 12780 W. Sanctuary Lane, Lake Bluff, IL 60044 (US).	60/112,953	18 December 1998 (18.12.98)	US	60/142,950	12 July 1999 (12.07.99)	US	60/142,975	12 July 1999 (12.07.99)	US	60/142,941	12 July 1999 (12.07.99)	US	60/142,951	12 July 1999 (12.07.99)	US	(74) Agents: TATE, Rodger, L. et al.; Baker & Botts, L.L.P., 1299 Pennsylvania Avenue, N.W., Washington, DC 20004 (US). (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
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(54) Title: METHODS AND APPARATUS FOR ENHANCEMENT OF TRANSDERMAL TRANSPORT

(57) Abstract

According to the present invention, a method for enhancing transdermal transport is disclosed. The method includes the steps of increasing a permeability of an area of a membrane with a permeabilizing device. The membrane may be, *inter alia*, biologic skin or synthetic skin. The permeabilizing device may be an ultrasound-producing device. A substance is transported into and through the area of the membrane. The substance may be a drug, a vaccine, or a component of interstitial fluid.



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graph TD
    START([START]) --> 202[DETERMINE BASELINE PARAMETER FOR SKIN]
    202 --> 204[BEGIN APPLYING ULTRASOUND]
    204 --> 206[MONITOR SKIN PERMEABILITY]
    206 --> 208[CONTROL ULTRASOUND]
    208 --> STOP([STOP])
  
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